

A new deepwater species of *Benthonellania* from the Caribbean

(Gastropoda: Rissoidae)*

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ABSTRACT. *Benthonellania donmoorei* n.sp. is described from deep water off Barbados and neighbouring islands. *Rissoa listera* Dall, 1927 is figured for the first time.

RESUME. *Benthonellania donmoorei* n.sp., espèce d'eau profonde est décrite de l'île de la Barbade et des îles avoisinantes. *Rissoa listera* Dall, 1926 est figurée pour la première fois.

KEYWORDS: Gastropoda, Rissoidae, *Benthonellania*, Caribbean, deepwater.

INTRODUCTION

The taxonomy of marine micromolluscs of the West Indies is still in need of research. In particular, species from deeper waters are rather unknown, despite the well known dredgings made as early as in the end of the 19th century by the "Challenger" and the "Blake" (WATSON, 1886; DALL, 1889).

In 1964, Dr. P. Wagenaar Hummelinck, with assistance of the Bellairs Institute, collected some samples off Barbados (90-200 m) which contained interesting gastropods several of which appeared to be undescribed (COOMANS & FABER, 1984). Amongst them was an unknown rissoid, which showed some affinity to *Rissoa xanthias* Watson, 1886. In 1989, an additional sample was received from near the previous locality (a sediment residue coated around sponges and *Siliquaria squamata* Blainville, 1827) and in June 1990 more samples were collected with a submersible from off Barbados

and Guadeloupe. In all samples the unknown rissoid was present. Recently, ROMER & MOORE (1988) described a new deep water *Alvania* species which at first sight was very similar to our unknown rissoid. It was named *Alvania (Alvania) colombiana* Romer & Moore, 1988 from off the west coast of Florida (USA) in about 107 m depth and also recorded from several other West Indian localities. Fortunately, our sample from Guadeloupe contained both taxa, which convinced us that they represent two different species. We do not agree with ROMER & MOORE (1988) who consider their species to be a true *Alvania* s.str. species (type species *Alvania europea* Risso, 1826 = *Turbo cimex* Linné, 1758). In our opinion these species belong to *Benthonellania*, a genus recently introduced by Lozouet (1990) for some circalittoral to bathyal rissoids from the tropical Atlantic.

* Studies on West Indian marine molluscs, 22.

ABBREVIATIONS

KBIN= Koninklijk Belgisch Instituut voor Natuurwetenschappen.

UMML= University of Miami Marine Laboratory.

USNM= National Museum of Natural History, Smithsonian Institution.

ZMA= Zoölogisch Museum, University of Amsterdam.

Benthonellania donmoorei n.sp.

Figs. 1-3

Description of holotype.

Shell small, length 1.2 mm, width 0.8 mm; bulbous, glossy, translucent white, multispiral light brown protoconch, teleoconch whorls convex with axial ribs, and many microscopic spiral lines. Suture deep.

Protoconch I (one whorl) with about 5 fine irregular spirals (fig. 3); intervening areas with many minute granules. Protoconch II (two whorls) with 3 zigzag spirals (figs 3), with extremely minute granules in between. A spiral band of tiny nodules present just below suture.

Teleoconch whorls (3) convex with strong axial ribs (fig. 1). First teleoconch whorls with about 12 axial ribs and 14 or 15 fine spiral lines (fig. 2). Body whorl with 14 or 15 slightly curved axial ribs which

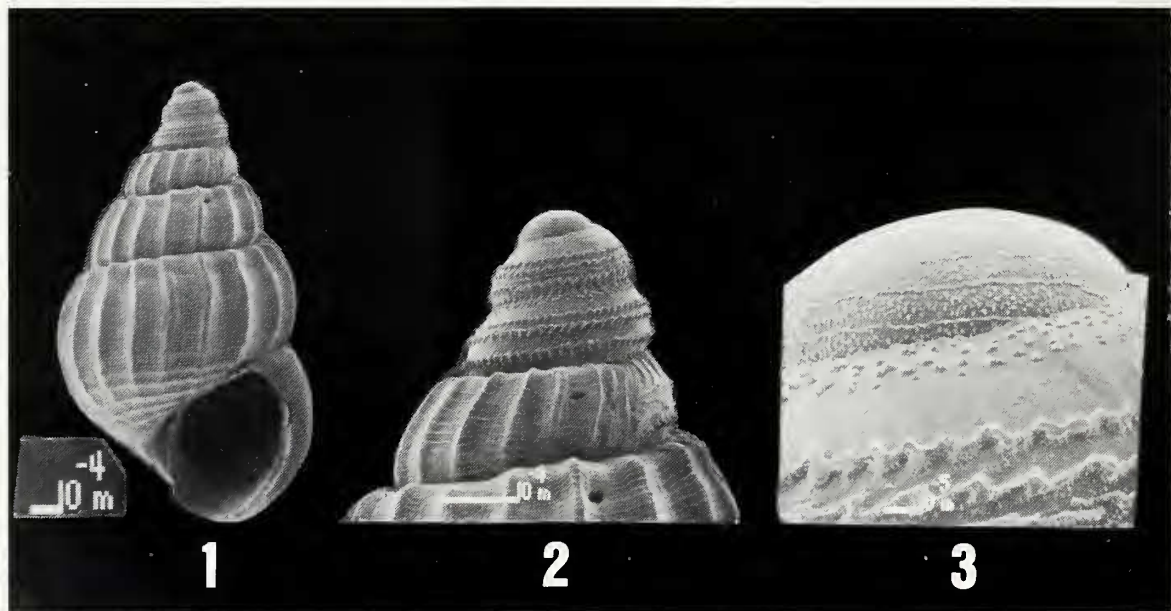
become weaker on the base of the shell. A weak spiral groove just below suture and 6 or 7 grooves on base. Narrow umbilical chink. Aperture ovate, with rather strong apertural varix. A posterior brown spot present just before varix.

Variability. Some paratypes have on the body whorl a vague light brown band just below periphery. The number of axial ribs may vary between 14 to 27. The length ranges from 1.1 to 1.6 mm.

Type locality. Barbados, 1 mile off Hometown, depth 200m., muddy sand. coll. Dr. P. Wagenaar Hummelinck.

Type material. Holotype (ZMA Moll. 3.90.016); 110 paratypes (ZMA Moll. 3.90.017). Paratypes will be sent to UMML, USNM and KBIN.

Other material studied. Barbados, off Paynes Bay, 13°09.96'N-59°39.37'W, 78 m, 11 April 1989, ex coll. Harbor Branch Oceanographic Institute (Florida), 3 specimens; Barbados, 13°15.12'N-59°40.43'W, 219 m, 10 April 1989, ex coll. Harbor Branch Oceanographic Institute (Florida), 7 specimens, both donated by Dr. W. de Weerd, 1990; Barbados, off Paynes Bay, 13°09'N-59°39'W, August 1978, leg. N. Stenoft, 3 specimens; Guadeloupe, 16°13.1'N-61°49.9'W 76-254 m, 21 June 1989, ex coll. Harbor Branch Oceanographic Institute (Florida), 10 specimens, don. Drs. W. de Weerd, 1990. All material deposited in ZMA.





H.J.H.

Rissoa listera Dall. off Fernandina
(USNM 333787), syntype, length 2.7 mm

DISCUSSION.

Benthonellania donmoorei n.sp. appears to be a rather common species at depth between 100-200 m around Barbados and neighbouring islands. Apparently, it lives sympatrically with *B. colombiana*, but can be separated by the different sculpture on the protoconch (compare ROMER & MOORE, 1988, fig. 2). Also the outline of the protoconch is not as straight and tapering as in *B. colombiana*. The number of axial ribs in most specimens is only about half of that species. *B. donmoorei* n.sp. tends to grow larger (1.6 mm) whereas *B. colombiana* reaches only 1.3 mm. *B. xanthias* (Watson, 1886) differs in being more elongate and having another micro sculpture on its protoconch. All these species were found sympatrically at Guadeloupe. *B. pyr-rhias* (Watson, 1886) is another related species from the West Indies, but this species has a protoconch with spirals and zigzag spiral lines. *B. listera* (Dall, 1927) (fig. 5) looks like a giant *B. donmoorei* n.sp. but has a more tapering protoconch and more axial ribs [see textfigure, we examined type material from off Fernandina, Florida (USNM 333787), 294 fms].

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